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1 A reciprocating floor conveyor comprising a
2 polarity of side by side parallel floor slats each of
3 which includes a front end, a rear end, a top section
4 with a generally horizontal top surface, a first side,
5 and a second side;

6 a first side wall integral with the first side
7 of the top section, extending downward from the top
8 section and extending from the front end to the rear end;

9 a second side wall integral with the second
10 side of the top section, extending downward from the top
11 section, parallel to and spaced from the first side wall;
12 and

13 a first bottom flange integral with the second
14 side wall, extending laterally inward toward the first
15 side wall, extending from the front end to the rear end,
16 and vertically spaced from the top section;

17 a second bottom flange integral with the second
18 side wall, extending laterally inward toward the first
19 side wall, extending from the front end to the rear end,
20 and vertically spaced from the top section;

21 a top section cantilevered portion integral
22 with the top section, extending laterally outward from
23 the second side wall, and extending from the front end to
24 the rear end;

25 a seal flange integral with the first side wall
26 including a seal support surface, a vertical wall
27 integral with the seal flange that cooperates with an

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28 outboard side of the first side wall to form a seal
29 retainer channel that is outboard of the outboard side of
30 the first side wall, has an open channel top and extends
31 from the front end to the rear end; and

2.

1 A reciprocating floor conveyor, as set forth in
2 claim 1, wherein the first side wall is vertical and the
3 second side wall is vertical.

3.

A reciprocating floor conveyor, as set forth in
claim 1, including a combination seal and bearing mounted
in the seal retainer channel and having an upwardly
facing bearing surface engagable with a seal contact
surface on an adjacent floor slat cantilevered portion
bottom.

4.

1 A reciprocating floor conveyor, as set forth in
2 claim 3, including a projection extending downward from
3 the seal contact surface and from the front end to the
4 rear end and wherein the projection forms a groove in the
5 upwardly facing bearing surface.

5.

1 A reciprocating floor conveyor, as set forth in
2 claim 4, wherein the projection is received in the groove
3 in the combination seal and bearing to create a seal.

6.

1 A reciprocating floor conveyor, as set forth in
2 claim 3, wherein the combination seal and bearing is an
3 ultra-high molecular weight plastic.

7.

1 A reciprocating floor conveyor, as set forth in
2 claim 6, including an anchor that limits movement between
3 the combination seal and bearing and the seal retainer

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4 channel.

8.

1 A reciprocating floor conveyor, as set forth in
2 claim 1, wherein the top section includes a first bottom
3 surface between the first side wall and the second side
4 wall that is a central bearing sliding contact surface, a
5 first bottom flange bottom surface that is a first
6 bearing sliding contact surface, a second bottom flange
7 bottom surface that is a second bearing sliding contact
8 surface, and a top section cantilevered portion
9 downwardly facing surface that is a combination seal and
10 bearing sliding contact surface.

9.

1 A reciprocating floor conveyor, as set forth in
2 claim 1, including a plurality of slide bearings each of
3 which has a transverse channel that receives a cross
4 beam, a fore and aft channel with a base that sits on the
5 cross beam between a pair of adjacent guide beams, a
6 right vertical wall and a left vertical wall extending
7 upward from the base, a left wing that extends laterally
8 outward from the left vertical wall and sits on a first

9 guide beam, a right wing that extends laterally outward
10 from the right vertical wall and sits on a second guide
11 beam, and wherein the each of the plurality of side by
12 side parallel floor slats receives the right wing of one
13 of the plurality of slide bearings and the left wing of
14 an adjacent one of the plurality of slide bearings
15 between the first side wall and the second side wall of
16 one of the plurality of side by side parallel floor
17 slats.

10.

1 A reciprocating floor conveyor slide bearing
2 comprising:
3 a horizontal central base including a base
4 front end, a base rear end, a base left side, a base
5 right side, a cross beam engaging bottom surface, a first
6 floor slat top bearing surface, and a second floor slat
7 top bearing surface;
8 a left side wall integral with the base left
9 side and extending upward from the horizontal base and
10 from the base front end to the base rear end;
11 a right side wall integral with the base right
12 side and extending upward from the horizontal base and

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13 from the base front end to the base rear end;

14 a left wing integral with a left side top of
15 the left side wall, extending to the left of the left
16 side wall, having a guide beam engaging left wing bottom
17 surface and a left wing top bearing surface;

18 a right wing integral with a right side top of
19 the right side wall, extending to the right of the right
20 side wall, having a guide beam engaging right wing bottom
21 surface and a right wing top bearing surface;

22 a front vertical transverse wall extending
23 downward from the horizontal central base adjacent to the
24 cross beam engaging bottom surface;

25 a rear vertical transverse wall extending
26 downward from the horizontal central base adjacent to the
27 cross beam engaging bottom surface; and

28 wherein the front vertical transverse wall, the
29 rear vertical transverse wall and the cross beam engaging
30 bottom surface form a transverse cross beam receiving
31 channel.

11.

1 A reciprocating floor conveyor slide bearing,
2 as set forth in claim 10, including a left side wall

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3 upper finger that engages a first guide beam, a right
4 side wall upper finger that engages a second guide beam,
5 and wherein the left side wall upper finger and the right
6 side wall upper finger limit upward movement of the
7 reciprocating floor conveyor slide bearing relative to
8 the first guide beam and the second guide beam.

12.

1 A reciprocating floor conveyor slide bearing,
2 as set forth in claim 11, wherein the left side wall
3 upper finger and the right side wall upper finger both
4 extend from the base front end to the base rear end.

13.

1 A reciprocating floor conveyor slide bearing,
2 as set forth in claim 10, including a left side wall
3 lower finger with a first floor slat engaging surface a
4 right side wall lower finger with a second floor slat
5 engaging surface.

14.

1 A reciprocating floor conveyor slide bearing,
2 as set forth in claim 13, wherein the left side wall
3 lower finger and the right side wall lower finger limit
4 upward movement of a first floor slat and a second floor
5 slat.

15.

1 A reciprocating floor conveyor slide bearing,
2 as set forth in claim 13 wherein the left side wall lower
3 finger and the right side wall lower finger both extend
4 from the base front end to the base rear end.

16.

1 A reciprocating floor conveyor slide bearing,
2 as set forth in claim 10, including a left side wall
3 lower front extension that extends downward from the
4 horizontal base and from the base front end to the front
5 vertical transverse wall;

6 a left side wall lower rear extension that
7 extends downward from the horizontal base and from the

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8 base rear end to the rear vertical transverse wall;
9 a right side wall lower front extension that
10 extends downward from the horizontal base and from the
11 base front end to the front vertical transverse wall; and
12 a right side wall lower rear extension that
13 extends downward from the horizontal base and from the
14 base rear end to the rear vertical transverse wall.

17.

1 A reciprocating floor conveyor slide bearing,
2 as set forth in claim 15, wherein the reciprocating floor
3 conveyor slide bearing is a one piece molded plastic
4 material.

18.

1 A reciprocating floor conveyor slide bearing,
2 as set forth in claim 16, wherein the reciprocating floor
3 conveyor is molded from ultra high molecular weight
4 material.